Name: _____ Per: ____

Unit 7 Study Guide

1a. Identify whether each described event is independent or dependent.

	Independent	Dependent
A. Choosing 2 students, given that the first student is from period 2 and the second student is from period 4.	☐	☐
B. Rolling a number cube twice.	☐	☐
C. Choosing 2 shirts from the closet without replacement.	☐	☐

1b. Identify whether each described event is independent or dependent.

	Independent	Dependent
A. Choosing 6 cards from the deck, replacing each one.	☐	☐
B. Choosing socks from a drawer and shoes from the closet.	☐	☐
C. Spinning a spinner 5 times.	☐	☐

1c. Identify whether each described event is independent or dependent.

	Independent	Dependent
A. Choosing 2 marbles from a bag without replacement.	☐	☐
B. Selecting 2 different students from the same classroom.	☐	☐
C. Choosing an M&M and a Skittle, given that each candy was from a different bag.	☐	☐

2a. If you choose an M&M from a bag that has 12 green, 14 red, 10 yellow and 6 blue M&Ms and then choose between a Pepsi, a Sprite and a Fanta, what is the probability that you will get a yellow M&M and a Fanta?

2b. If you choose a card from a 52-card deck, which has 2 red Kings and 2 black Kings, and then flip a coin, what is the probability that you will get a red King and heads?

2c. If you choose a shirt from a bag that has 5 red , 7 blue, 3 green and 9 orange shirts and then pick a hat from a closet with 2 black, 11 pink and 7 yellow hats, what is the probability that you will get a red shirt and a black hat?

3a. There are 6 rabbits, 4 chickens and 3 ducks. If 2 are chosen without replacement, what is the probability of choosing two chickens?

3b. There are 5 soccer players, 8 baseball players, 2 dancers and a football player. If 2 are chosen without replacement, what is the probability of choosing two baseball players?

3c. There are 2 toasters, 3 TVs and 1 microwave. If 2 are chosen without replacement, what is the probability of choosing two toasters?

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Use the two-way frequency table shown below to evaluate problems 4 & 5.

Concession Sales

	Pizza	Hot Dog	Burger	No Food	TOTAL
Soda	12	10	14	7	43
Water	11	7	10	9	37
No Drink	8	13	11	0	32
TOTAL	31	30	35	16	112

4a. What is the probability that a customer selected at random bought a hot dog?	4b. What is the probability that a customer selected at random bought a water?	4c. What is the probability that a customer selected at random bought pizza?
5a. What is the probability that a customer selected at random bought a burger, given that he or she bought a soda?	5b. What is the probability that a customer selected at random bought water, given that he or she bought hot dog?	5c. What is the probability that a customer selected at random bought no food, given that he or she bought a water?

Unit 7 Study Guide Answers

1a.

	Independent	Dependent
A.	☒	☐
B.	☒	☐
C.	☐	☒

1b.

	Independent	Dependent
A.	☒	☐
B.	☒	☐
C.	☒	☐

1c.

	Independent	Dependent
A.	☐	☒
B.	☐	☒
C.	☒	☐

2a. 7.9%	2b. 1.9%	2c. 2.1%
3a. 7.7%	3b. 23.3%	3c. 6.7%
4a. 26.8%	4b. 33.0%	4c. 27.7%
5a. 32.6%	5b. 23.3%	5c. 24.3%